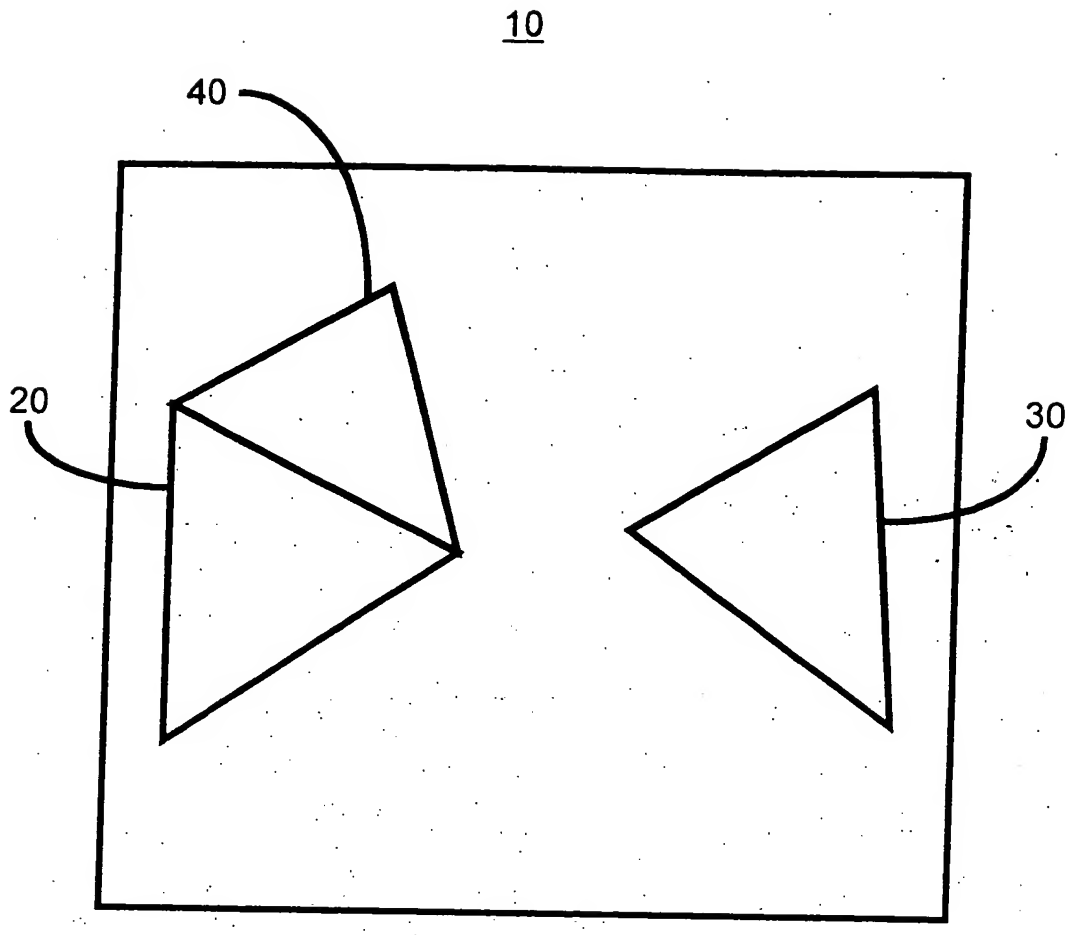

Figure 1A

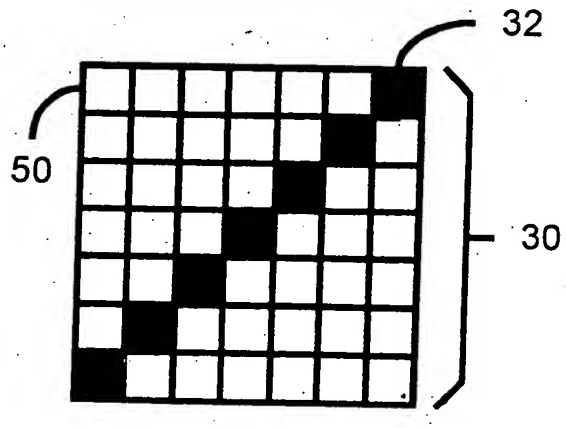

Figure 1B

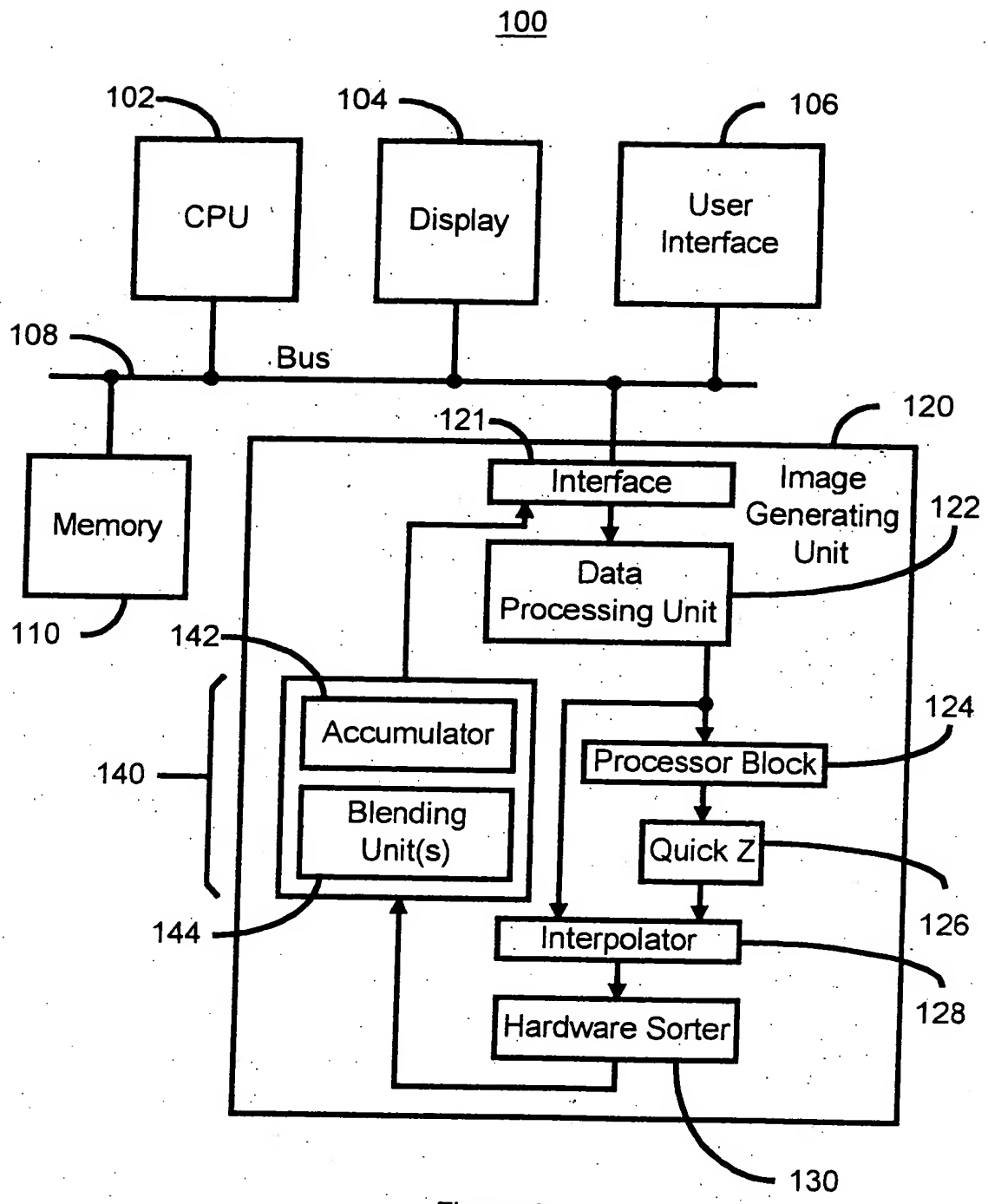
100
102
CPU
104
Display
106
User Interface
108
Bus
Memory
110
121
Interface
120
Image Generating Unit
122
Data Processing Unit
142
Accumulator
Blending Unit(s)
140
144
124
Processor Block
Quick Z
126
Interpolator
128
Hardware Sorter
130

Figure 2

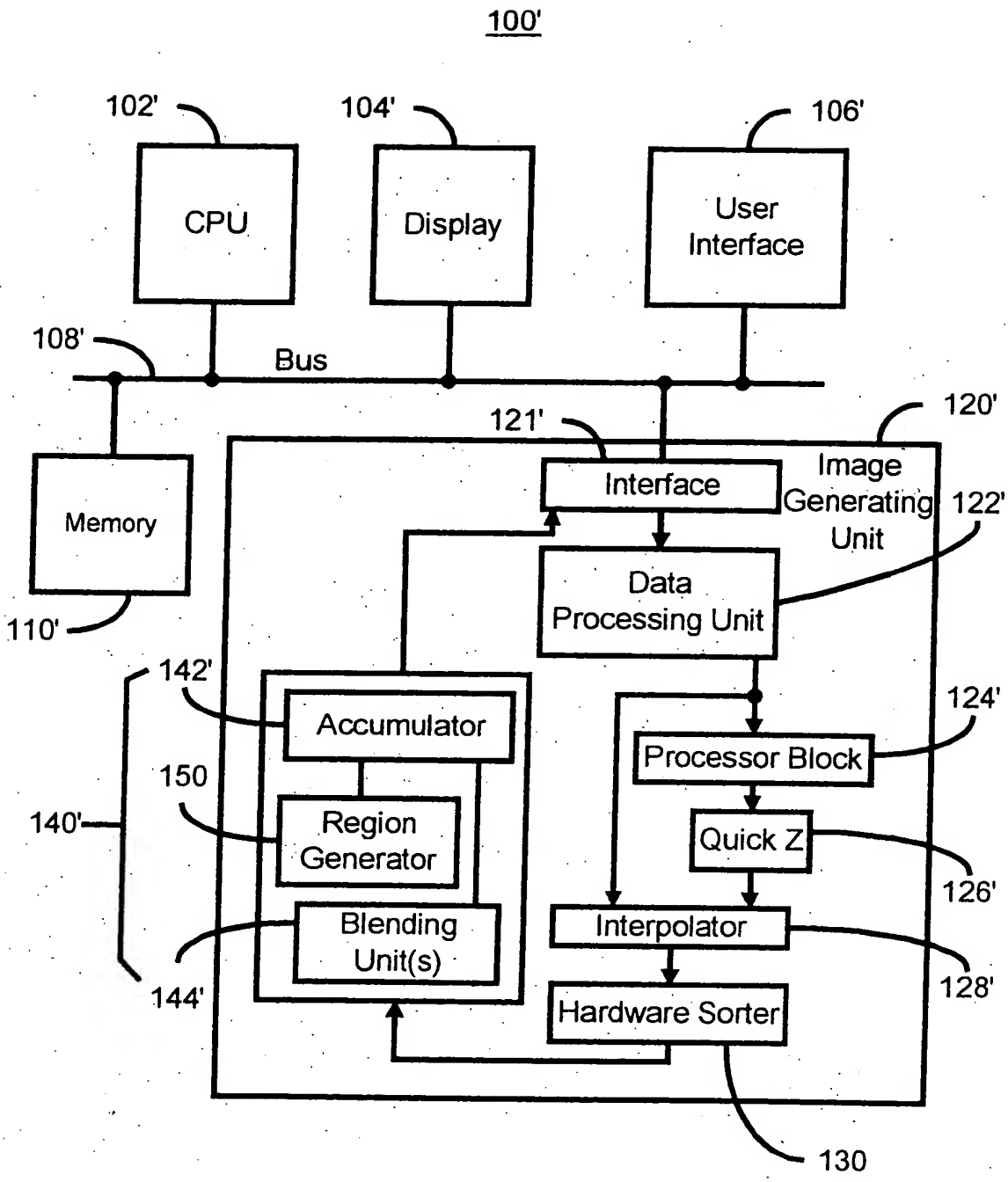
100'
102'
104'
106'
CPU
Display
User Interface
108'
Bus
121'
120'
Interface
Image Generating Unit
122'
Memory
Data Processing Unit
110'
142'
Accumulator
124'
Processor Block
150
Region Generator
140'
Quick Z
126'
Blending Unit(s)
Interpolator
128'
144'
Hardware Sorter
130

Figure 3

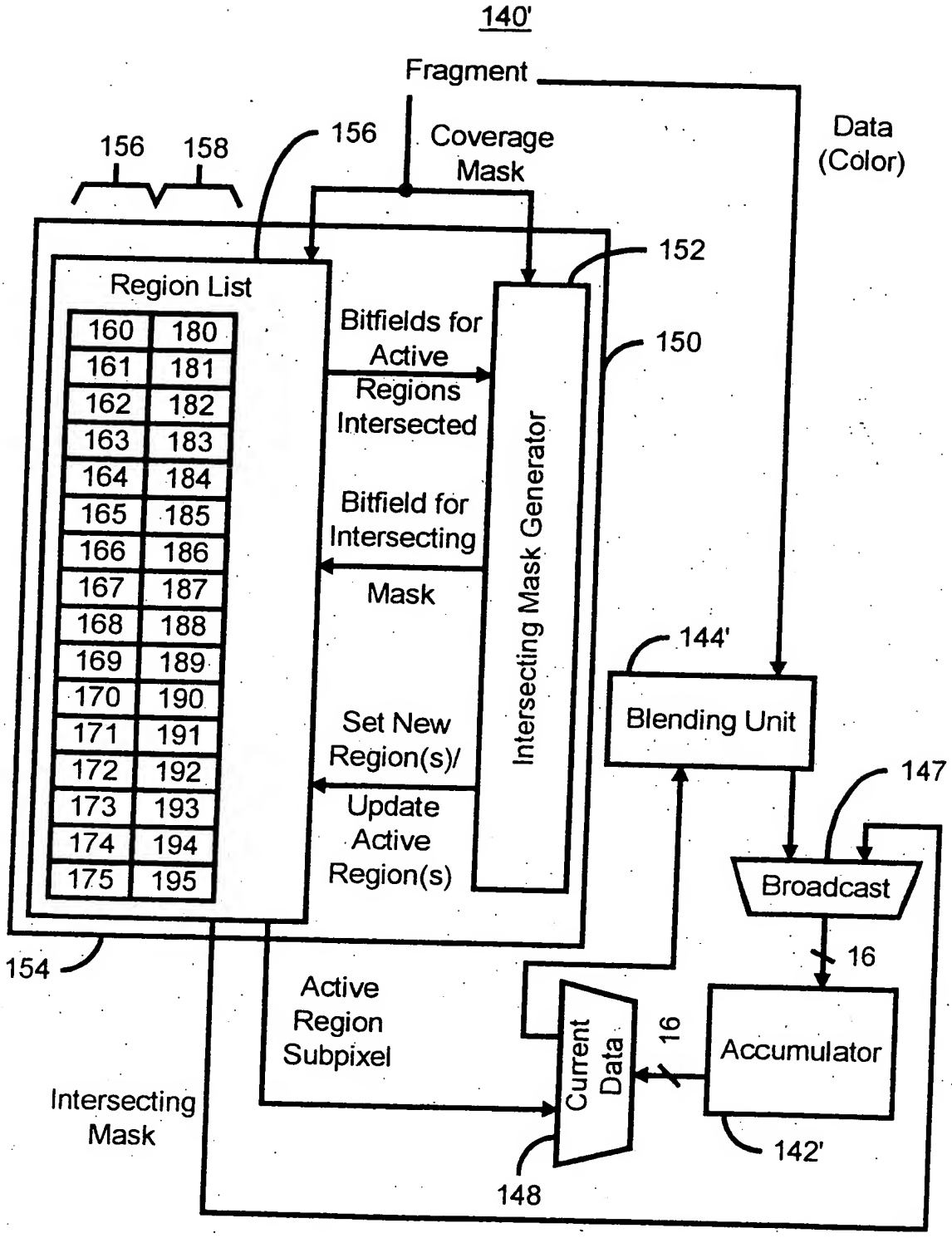
140'
Fragment
Data (Color)
156
158
156
Coverage Mask
152
Region List
160 180
161 181
162 182
163 183
164 184
165 185
166 186
167 187
168 188
169 189
170 190
171 191
172 192
173 193
174 194
175 195
Bitfields for Active Regions Intersected
150
Bitfield for Intersecting Mask
Intersecting Mask Generator
144'
Blending Unit
Set New Region(s)/ Update Active Region(s)
147
Broadcast
16
154
Active Region Subpixel
Current Data
16
Accumulator
Intersecting Mask
142'
148

Figure 4

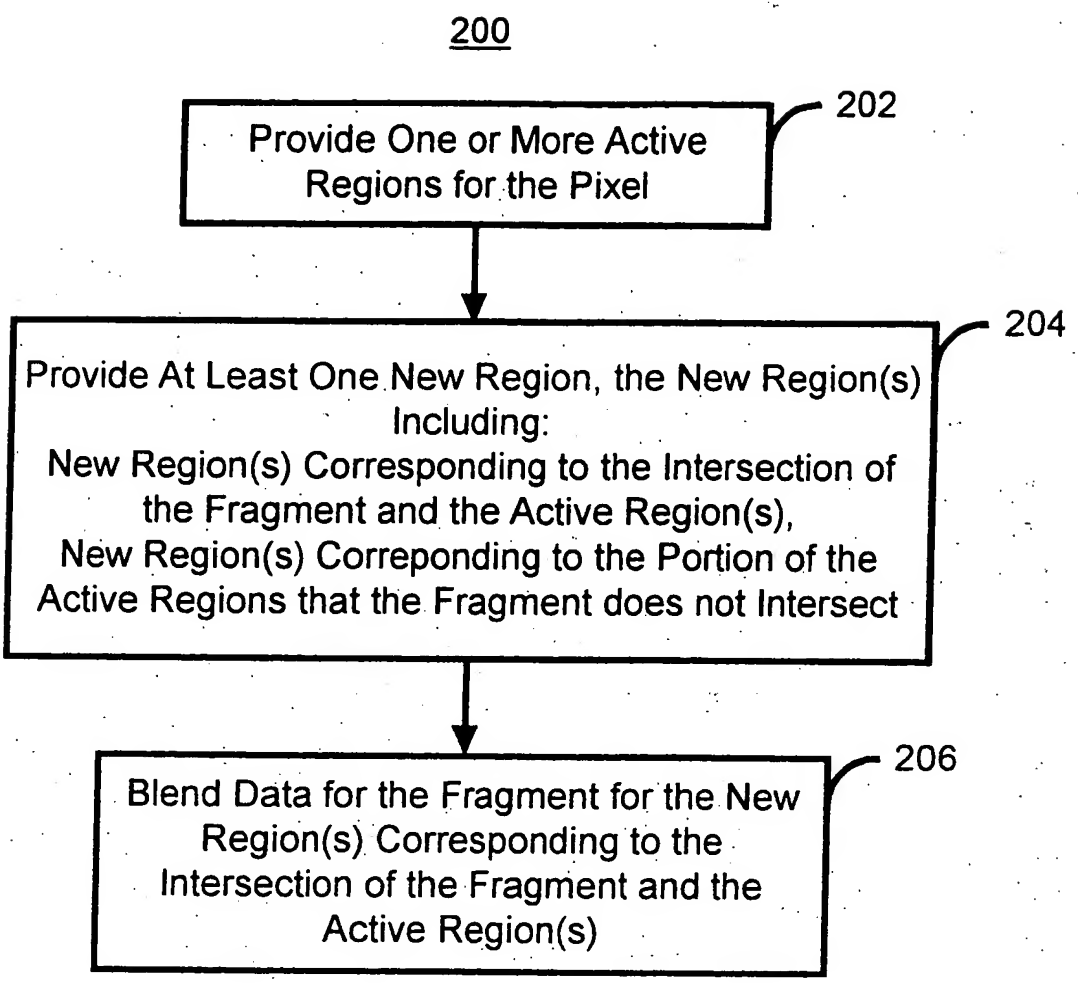
200
Provide One or More Active Regions for the Pixel
202
Provide At Least One New Region, the New Region(s) Including:
New Region(s) Corresponding to the Intersection of the Fragment and the Active Region(s),
New Region(s) Correponding to the Portion of the Active Regions that the Fragment does not Intersect
204
Blend Data for the Fragment for the New Region(s) Corresponding to the Intersection of the Fragment and the Active Region(s)
206

Figure 5A

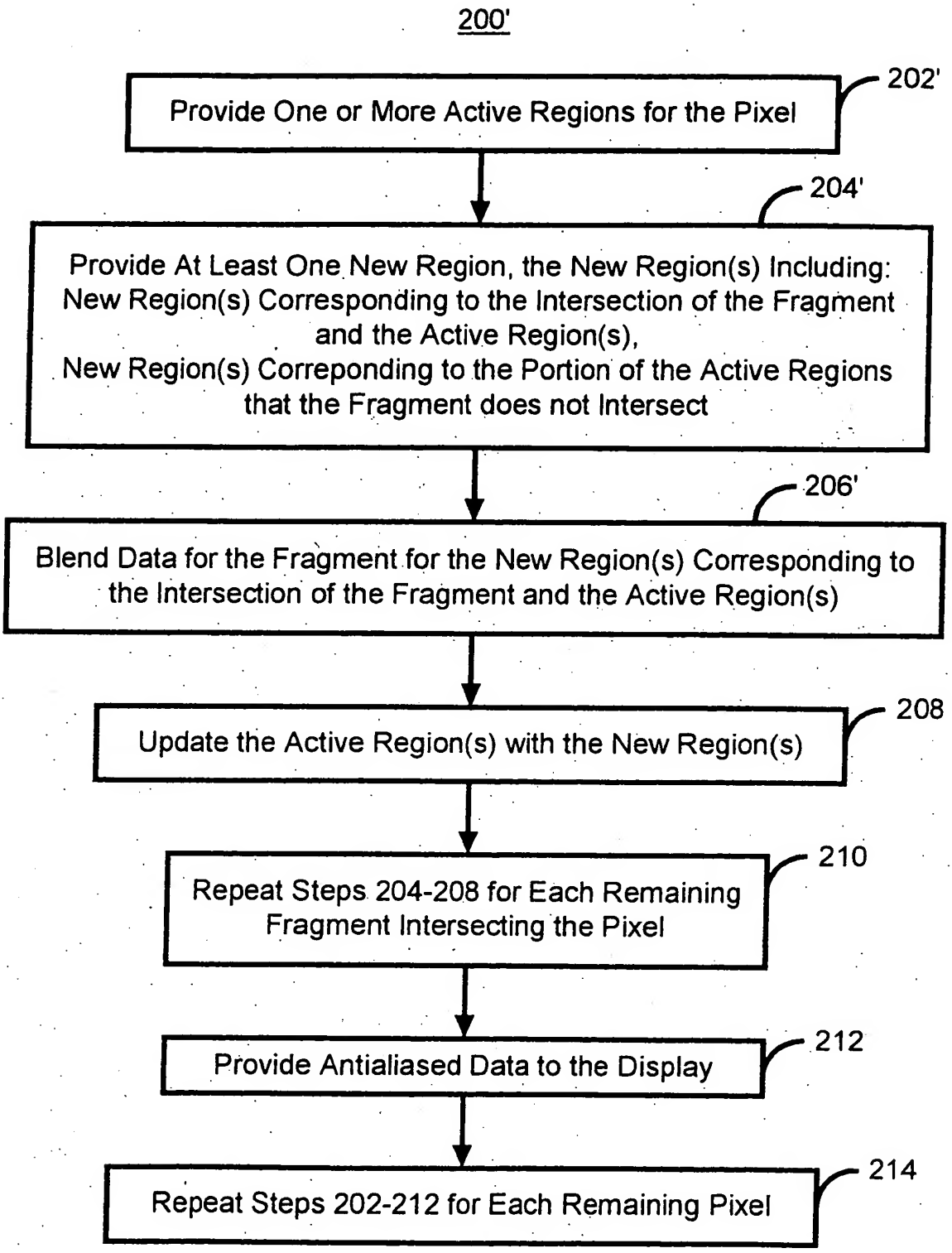
200'
Provide One or More Active Regions for the Pixel
202'
204'
Provide At Least One New Region, the New Region(s) Including:
New Region(s) Corresponding to the Intersection of the Fragment and the Active Region(s),
New Region(s) Correponding to the Portion of the Active Regions that the Fragment does not Intersect
206'
Blend Data for the Fragment for the New Region(s) Corresponding to the Intersection of the Fragment and the Active Region(s)
Update the Active Region(s) with the New Region(s)
208
Repeat Steps 204-208 for Each Remaining Fragment Intersecting the Pixel
210
Provide Antialiased Data to the Display
212
Repeat Steps 202-212 for Each Remaining Pixel
214

Figure 5B

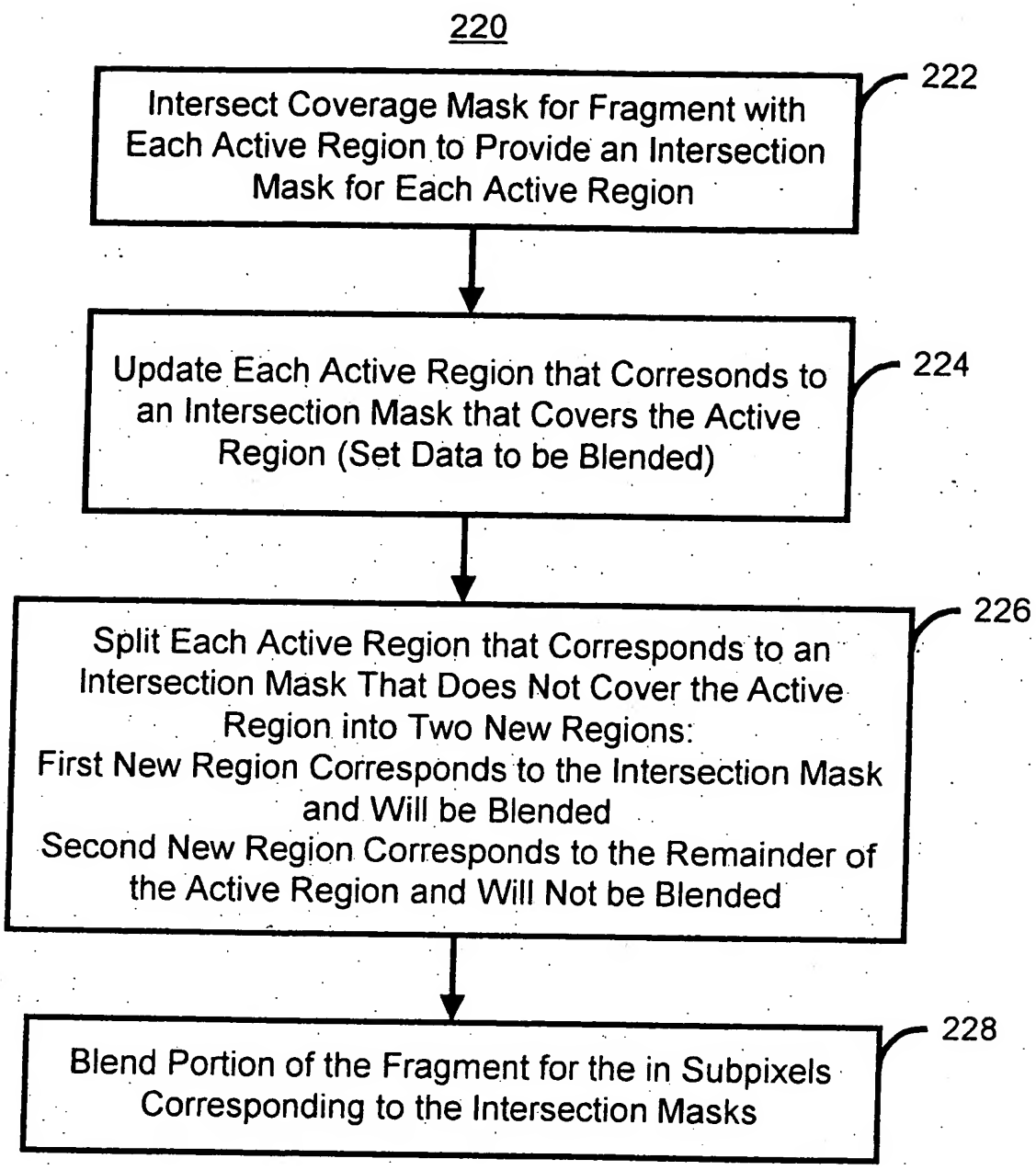
220
Intersect Coverage Mask for Fragment with Each Active Region to Provide an Intersection Mask for Each Active Region
222
Update Each Active Region that Corresonds to an Intersection Mask that Covers the Active Region (Set Data to be Blended)
224
Split Each Active Region that Corresponds to an Intersection Mask That Does Not Cover the Active Region into Two New Regions:
First New Region Corresponds to the Intersection Mask and Will be Blended
Second New Region Corresponds to the Remainder of the Active Region and Will Not be Blended
226
Blend Portion of the Fragment for the in Subpixels Corresponding to the Intersection Masks
228

Figure 6

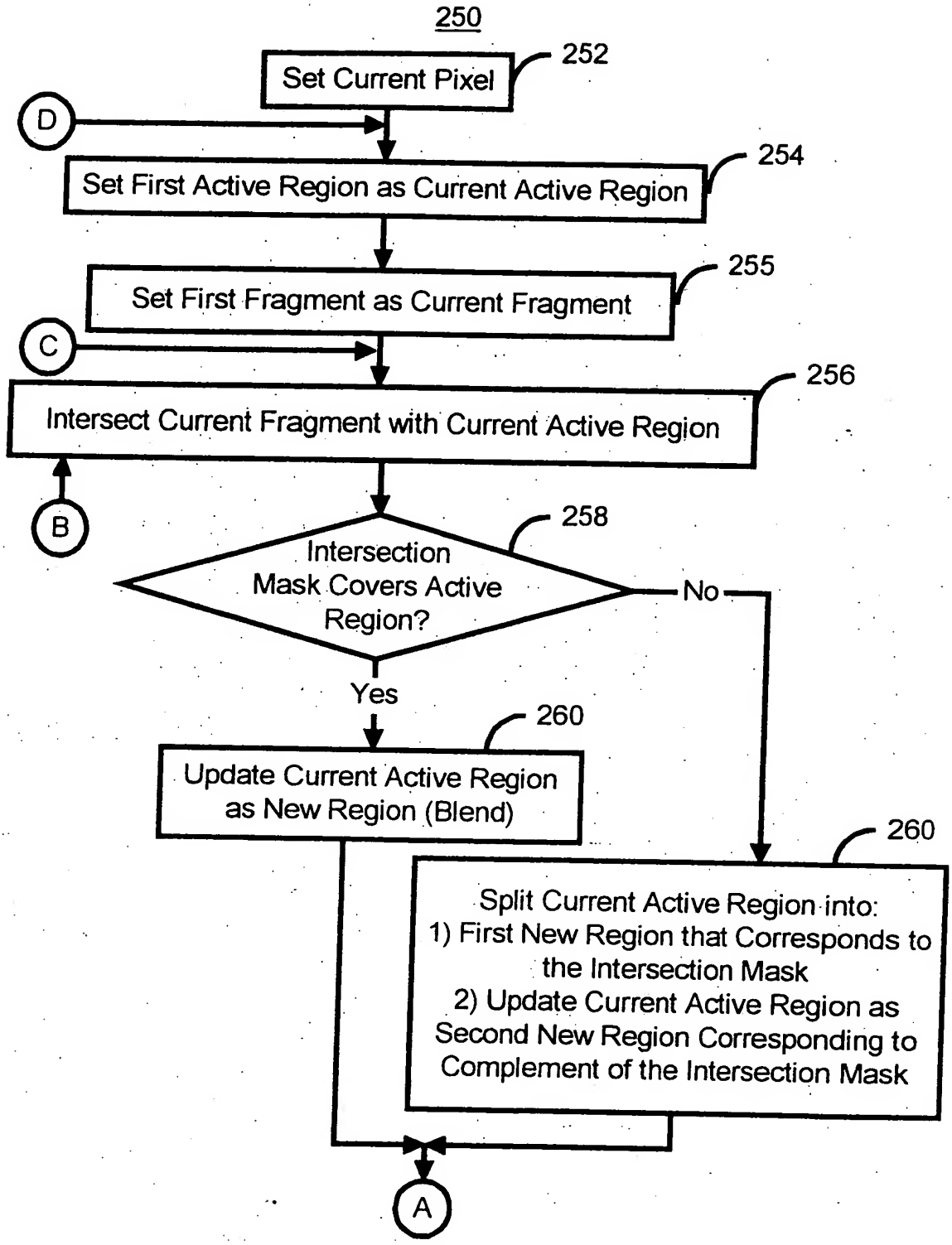
250
Set Current Pixel
252
D
Set First Active Region as Current Active Region
254
Set First Fragment as Current Fragment
255
C
Intersect Current Fragment with Current Active Region
256
B
Intersection Mask Covers Active Region?
258
No
Yes
Update Current Active Region as New Region (Blend)
260
Split Current Active Region into:
1) First New Region that Corresponds to the Intersection Mask
2) Update Current Active Region as Second New Region Corresponding to Complement of the Intersection Mask
260
A

Figure 7A

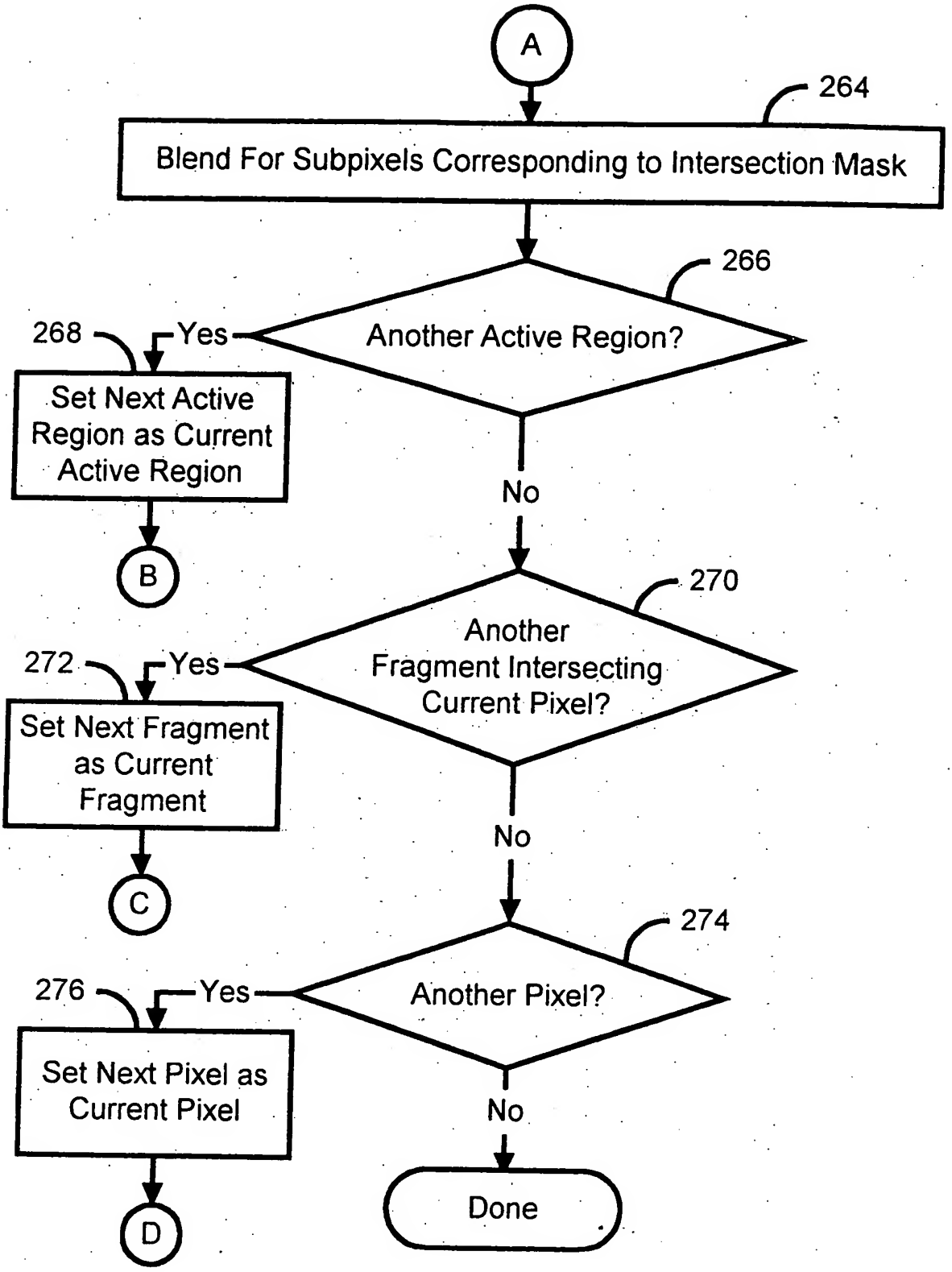
A
264
Blend For Subpixels Corresponding to Intersection Mask
266
Another Active Region?
268
Yes
Set Next Active Region as Current Active Region
B
No
270
Another Fragment Intersecting Current Pixel?
272
Yes
Set Next Fragment as Current Fragment
C
No
274
Another Pixel?
276
Yes
Set Next Pixel as Current Pixel
D
No
Done

Figure 7B

300

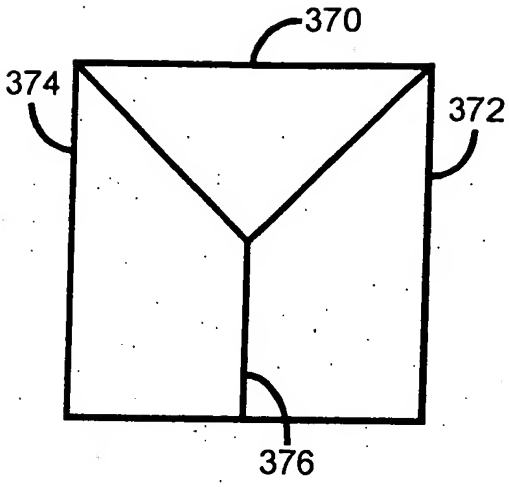

Figure 8A

300

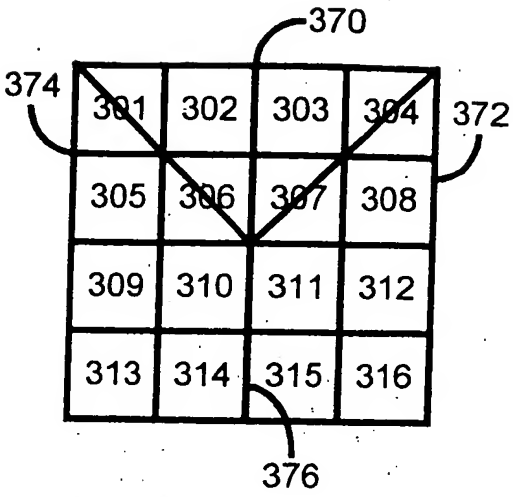

Figure 8B

318

			1
		1	1
	1	1	1
1	1	1	1

Figure 8C

319

1			
1	1		
1	1	1	
1	1	1	1

Figure 8D

320

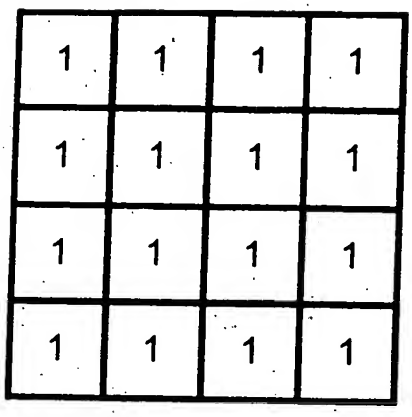

Figure 9

320'

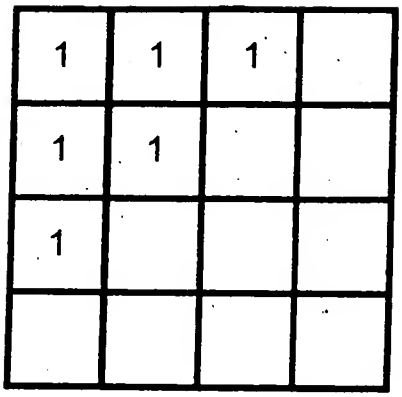

Figure 10A

322

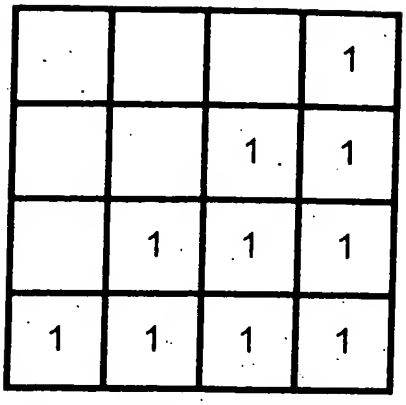

Figure 10B

144'

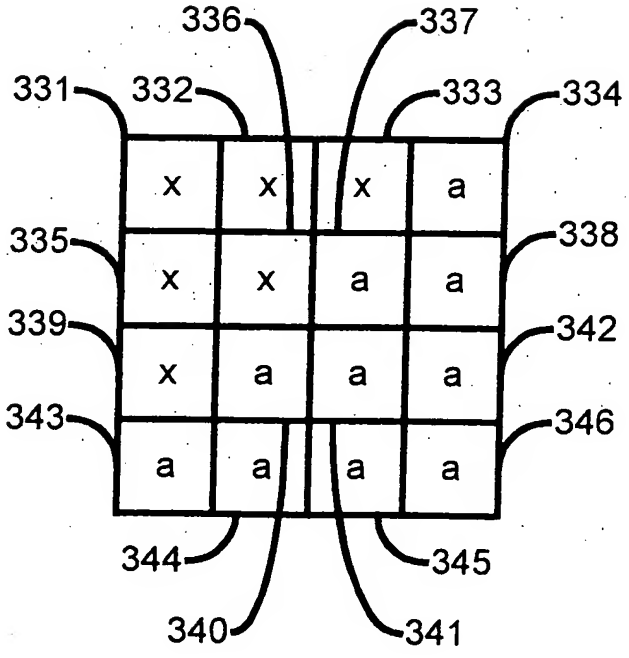

Figure 10C

320"

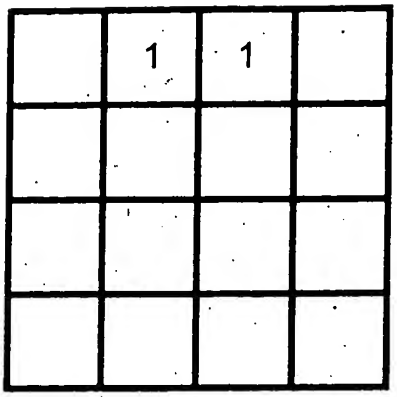

Figure 11A

322'

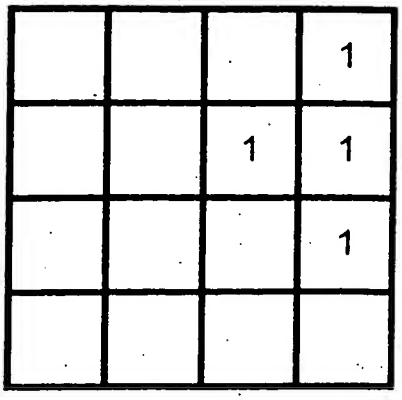

Figure 11B

324

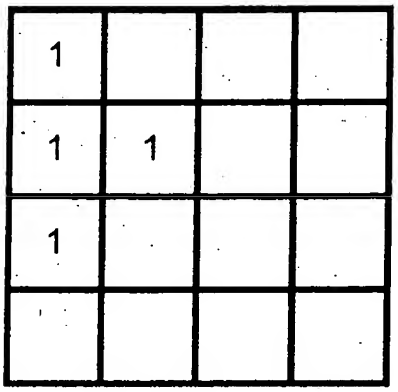

Figure 11C

326

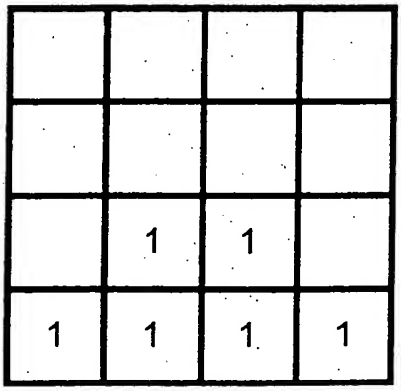

Figure 11D

144'

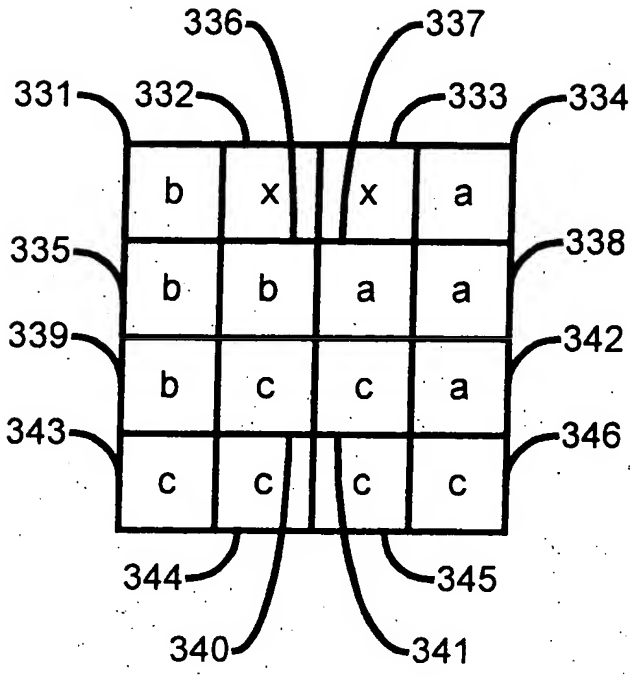

Figure 11E